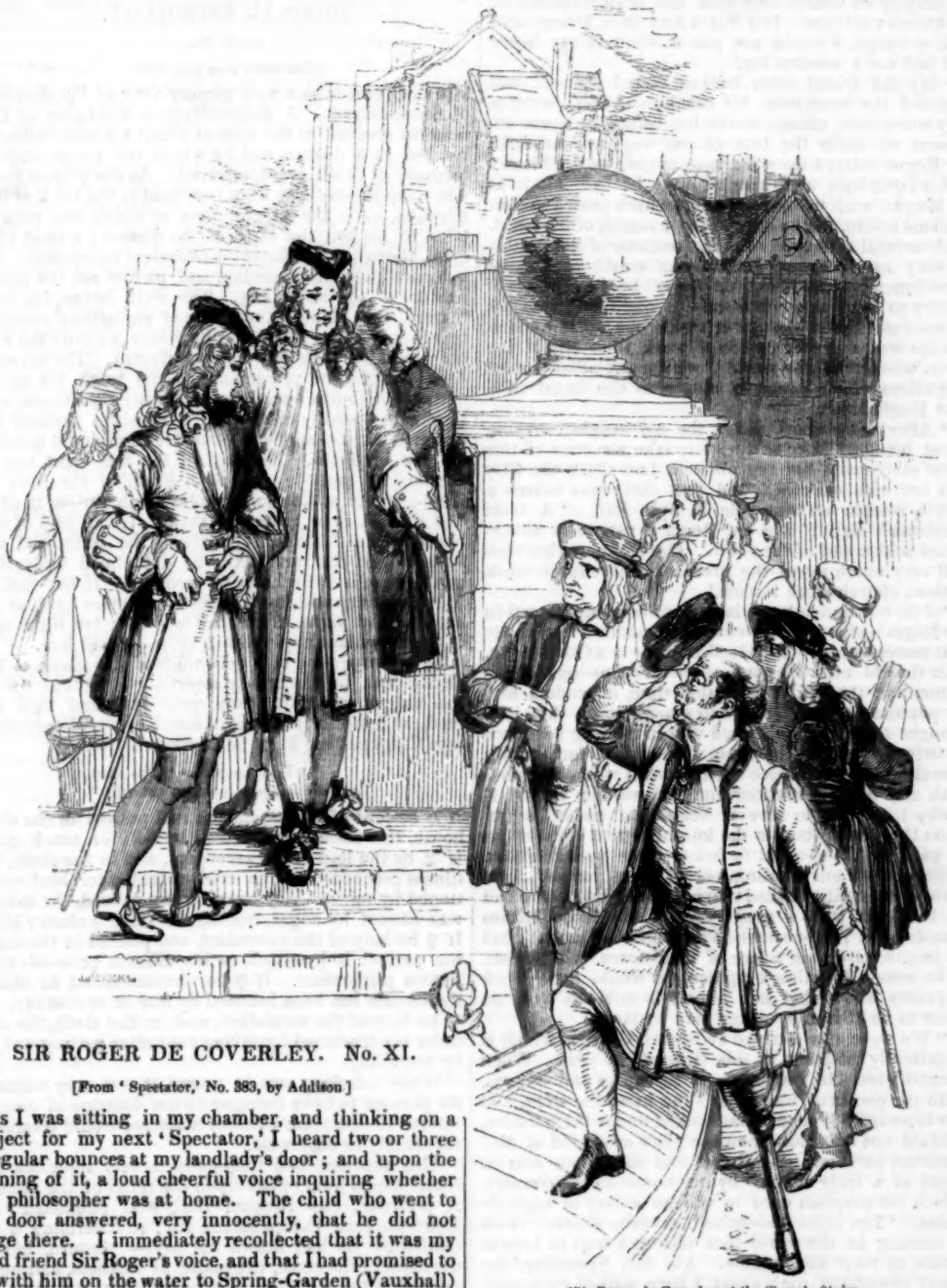

[Sir Roger de Coverley at the Temple-Stairs.]

SIR ROGER DE COVERLEY. No. XI.

[From 'Spectator,' No. 383, by Addison.]

"As I was sitting in my chamber, and thinking on a subject for my next 'Spectator,' I heard two or three irregular bounces at my landlady's door; and upon the opening of it, a loud cheerful voice inquiring whether the philosopher was at home. The child who went to the door answered, very innocently, that he did not lodge there. I immediately recollected that it was my good friend Sir Roger's voice, and that I had promised to go with him on the water to Spring-Garden (Vauxhall) in case it proved a good evening. The knight put me in mind of my promise from the bottom of the staircase, but told me that if I was speculating he would stay below until I had done. Upon my coming down, I found all the children of the family got about my old friend; and my landlady herself, who is a notable prating gossip, engaged in a conference with him; being mightily pleased with his stroking her little boy on the head, and bidding him to be a good child and mind his book.

"We were no sooner come to the Temple Stairs, but we were surrounded with a crowd of watermen, offering us their respective services. Sir Roger, after having looked about him very attentively, spied one with a wooden leg, and immediately gave him orders to get his boat ready. As we were walking towards it, 'You must know,' says Sir Roger, 'I never make use of anybody to row me that has not lost either a leg or an arm. I would rather bate him a few strokes of his oar than

not employ an honest man that has been wounded in the queen's service. If I was a lord or a bishop, and kept a barge, I would not put a fellow in my livery that had not a wooden leg.'

"My old friend, after having seated himself, and trimmed the boat with his coachman, who, being a very sober man, always serves for ballast on these occasions, we made the best of our way for Vauxhall. Sir Roger obliged the waterman to give us the history of his right leg; and, hearing that he had left it at La Hogue, with many particulars which passed in that glorious action, the knight, in the triumph of his heart, made several reflections on the greatness of the British nation; as, that one Englishman could beat three Frenchmen; that we could never be in danger of popery so long as we took care of our fleet; that the Thames was the noblest river in Europe; that London Bridge was a greater piece of work than any of the seven wonders of the world; with many other honest prejudices which naturally cleave to the heart of a true Englishman.

"After some short pause, the old knight, turning about his head twice or thrice to take a survey of this great metropolis, bid me observe how thick the City was set with churches, and that there was scarce a single steeple on this side Temple Bar. 'A most heathenish sight!' says Sir Roger: 'there is no religion at this end of the town. The fifty new churches will very much mend the prospect; but church work is slow, church work is slow.'

"I do not remember I have anywhere mentioned in Sir Roger's character his custom of saluting everybody that passes by him with a Good-morrow or a Good-night. This the old man does out of the overflowings of his humanity; though, at the same time, it renders him so popular among his country neighbours, that it is thought to have gone a good way in making him once or twice knight of the shire. He cannot forbear this exercise of benevolence even in town when he meets with any one in his morning or evening walk. It broke from him to several boats that passed by us upon the water; but, to the knight's great surprise, as he gave the Good-night to two or three young fellows a little before our landing, one of them, instead of returning the civility, asked us what queer old put we had in the boat, with a great deal of the like Thames ribaldry. Sir Roger seemed a little shocked at first; but at length, assuming a face of magistracy, told us that, if he were a Middlesex justice, he would make such vagrants know that her Majesty's subjects were no more to be abused by water than by land.

"We were now arrived at Spring-Garden, which is excellently pleasant at this time of the year. When I considered the fragrance of the walks and bowers, with the choirs of birds that sung upon the trees, and the loose tribe of people that walked under their shades, I could not but look upon the place as a kind of Mahometan paradise. Sir Roger told me it put him in mind of a little coppice by his house in the country, which his chaplain used to call an aviary of nightingales. 'You must understand,' says the knight, 'there is nothing in the world that pleases a man in love so much as your nightingale. Ah, Mr. Spectator, the many moonlight nights that I have walked by myself, and thought on the widow by the music of the nightingale!'

"We concluded our walk with a glass of Burton ale and a slice of hung beef. When we had done eating ourselves, the knight called a waiter to him, and bid him carry the remainder to the waterman that had but one leg. I perceived the fellow stared upon him at the oddness of the message, and was going to be saucy; upon which I ratified the knight's commands with a peremptory look."

JUDICIAL ASTROLOGY.

PART IV.

[Concluded from page 432.]

WE shall now take a very cursory view of the doctrine of decumbitures. A decumbiture is a scheme of the heavens erected for the time at which a person takes to his bed in a disease, and by which the prognostics of recovery or death are discovered. As the precise time when a question starts from the mind is the birth of the question, so is the precise time at which the patient takes to his bed the birth of the disease; a most illogical, though a satisfactory astrological conclusion. In a decumbiture the ascendant and its lord are the significators of the sick party. The sixth house, the lord thereof, the planets therein, and signs they occupy, together with the Moon and her place, include the disorder and the parts of the body affected. The seventh house denotes the physician, and the tenth his medicine. The fourth house shows whether the disease will terminate speedily or tardily: fixed signs prolong it; common signs change it; moveable signs end it quickly for life or death. The lord of the ascendant and ☽ combust of the ☉ (*i. e.* within 8° 30′ of the body of the ☉, in the same sign) denotes death, unless ♃ or ♀ cast their △ or ✶ aspect to them. If the lord of the house of death be fortified above the earth, and the lords of the first and sixth be debilitated under the earth, there is little hope of recovery. If the lord of the ascendant and the ☽ aspect each other by □ or ☍, especially at night, the patient will die; but if the lord of the ascendant apply to a △ or ✶, he will live.

By an inspection of a decumbiture the cause of the disease can be accurately ascertained without seeing the patient or asking any questions; and thus the medical professor, if he be an astrologer (and only such, says Culpeper, are fit to be physicians) can—

"Feel the pulses of the stars,
To find out agues, coughs, catarrhs."

If ♄ be lord of the ascendant, and posited in the sixth house, the disease was caused by cold or much grief. If ♃ be the lord of the ascendant, and in the sixth, the illness proceeded from a cold caught after heat occasioned by mirth. If ♂ be so circumstanced, the disease was caused by anger, fretting, or some unlucky blow. If ♀ be lady of the ascendant, and posited in the sixth, the patient is love-sick, or his ailment proceeds from riotous jolification. If ☿ be circumstanced as above, the disease has been induced by fear or over-study. If ☽ be lady of the ascendant, and in the sixth, the disorder is occasioned by taking cold after getting wet, or by travelling.

When astrology was in vogue, it was very common for persons to have recourse to the doctrine of decumbitures to ascertain whether a disease would terminate favourably or otherwise.

This practice had frequently a very injurious and sometimes a fatal effect upon the mind of the patient. A professor, one Richard Ball, who published 'An Astro-physical Compendium, &c.,' in describing a decumbiture he had drawn up, says—"Saturn, having dignities in the sixth, the house of sickness, and being posited in the eighth, the house of death, and almost in conjunction with the Sun, the lord of the fourth, I judged the distemper would prove mortal, the more especially as the moon separated from a quartile of Mars to a conjunction with Saturn, who is naturally an enemy to life, and in this figure lord of the house of death, which are great arguments of sudden death. I, therefore, sent the querent word that she might prepare herself for another world, having (according to natural causes) but a short time to continue in this. She expired two days afterwards, when the moon came to the

body of Saturn, who was lord of the eighth, and in the eighth at the time of asking the question." That a sick and superstitious woman should die two days after receiving such a prophetic warning is not at all surprising, even though the Moon had applied to the body of Jupiter instead of Saturn, for the influence of the imagination must have greatly exceeded that of the stars.

The planets not only govern all the diseases "that flesh is heir to," but also all curative and other herbs; indeed, the whole vegetable kingdom is under their rule. How or when the influence of the planets over the respective plants and herbs, which they are said to govern, was discovered, it would be useless now to inquire. Culpeper, the author of the well-known herbal, seems to have arrived at a knowledge of this department of planetary domination by a sort of inductive reasoning that is much more curious than consequential. Speaking of the government and virtues of wormwood, he says—"Will you give me leave to be a little critical? I must take leave. Wormwood is an herb of Mars, and if Pontanus say otherwise, he is beside the bridge. I prove it thus: What delights in martial places is a martial herb; wormwood delights in martial places (for about forges and iron-works you may gather a cartload of it); *ergo* it is a martial herb. They say a mouse is under the dominion of the moon, and that is the reason they feed in the night: the house of the Moon is Cancer. Rats are of the same nature with mice, but they are a little bigger. Mars receives his fall in Cancer; *ergo* wormwood, being an herb of Mars, is a present remedy for the biting of rats and mice. Moths are under the dominion of Mars; therefore wormwood laid among clothes makes a moth scorn to meddle with them, as much as a lion scorns to meddle with a mouse, or an eagle with a fly. Who dares say Mars doth no good? Why should men cry out so much upon Mars for an unfortunate (or Saturn either)? Did God make creatures to do the creation a mischief? This herb testifies that Mars is willing to cure all the diseases he causes: the truth is, Mars loves no cowards, nor Saturn fools, nor I neither."

Culpeper's logic may be laughed at; but it is, nevertheless, as good as any that can be found in support of the position which it is intended to establish.

The same pretended principles, with a few variations of the absurdities, were applied to what was called nautical astrology, or the events of ships.

The next department of astrology has been termed natural, as it relates to the predicting of natural events, as distinguished from moral effects proceeding from the will of man. To this part of the art belong all prognostications of the weather, winds, storms, hurricanes, thunder, floods, earthquakes, &c. Goad (vide his 'Aphorismi Astro-Meteorologici') maintains that inundations may be foretold and an infinity of phenomena explained and predicted from the situation and habitudes of the planets, from their retrograde motions, the fixed stars in the constellations, &c. On this branch of astrology, although the ingenious Mr. Boyle has an apology for it in his history of the air, it will not be necessary to say much, as its numerous rules are not founded on any established principles. Of course we shall not give what astrologers call an 'Apertio Portarum' for the whole year, but merely select a few of the choicest rules. Weather prophets have always been remarkable for the failure of their predictions, which we shall not be surprised at when we know the rules they work by. The planet Saturn is the causator of eastern winds, Jupiter of northern, Mars of western, Venus of southern, Mercury of different winds according to his aspect, and the Sun and Moon of east and west winds. Venus, Mercury, and the Moon are rainy planets. The moist signs are ♋, ♌, ♍, ♏, ♐, ♓; the latter end of ♈ and ♉ and the beginning of ♊ are also moist; and planets, particularly the rainy ones, when posited in these places produce much rain. When the Sun shall be in eighteen degrees of Scorpio, and Venus in a moist place, as much rain may be expected as will inundate the low grounds. When the Moon is with Venus in ♈, ♎, ♍, or ♓, there will be showers, thunder, and lightning. With respect to the winds, particular regard must be had to the place of Mercury and his application to other planets; for if he apply to Saturn, expect strong winds, a dark air, and some rain; if he apply to Jupiter, gentle winds without rain; if to Mars, warm winds; if to the Sun, hot and insalubrious winds; and if to Venus, moist winds. If Mercury be stationary, retrograde, or going out of one sign into another, strong winds will follow. Nothing can be much more difficult than to predict, from the foregoing rules, the quarters whence the winds will blow; and astrologers seem to be aware of this, for in Moore's 'Almanac' for 1842, the point from which the wind will blow is only once stated, and that is when Jupiter and Saturn entered into their true ecliptical conjunction on Jan. 26, on which occasion severe easterly winds were to be expected. Now, as Saturn causes the wind to blow from the east and Jupiter from the north, if their forces had been equal, the wind would have been north-east; but the presumption is, that as the conjunction took place in Capricornus, the night house of Saturn, in which Jupiter has his detriment, Saturn's essential dignities enabled him to overcome the debilitated power of Jupiter, and induce the wind to blow from the east. If the planets were to exert their power of producing winds simultaneously, it would be difficult, from such a confluence, to determine which had the predominance. We have seen, according to the rule, that when Mercury applies to a conjunction with the Sun, that hot and insalubrious winds are produced; but when Mercury applied to a conjunction with that luminary, on the 17th of January, 1842, we had no hot insalubrious winds.

The conjunction of the Moon and Mars in moist signs produces rain, in fiery signs great drought; but a conjunction of the ☽ and ♂, in the fiery sign ♈, which occurred in March, 1842, was not followed by a great drought: according to Moore, the weather at that time was squally, with sleet or cold rain. These instances are sufficient to show that the causes of mutation in the weather are not to be sought for in astrological aphorisms. A weather prophet in Egypt must draw very different inferences from the location of rainy planets in moist signs, from those which are drawn by weather prophets in England.

The only remaining branch of astrology is the political, which we shall forbear to touch upon further than to observe that it is very fruitful of predictions, abundant specimens of which may be found in Moore's 'Almanac,' couched in something like the following terms:—"The planetary positions lead us to believe that affairs of great importance are now upon the stage of the world, especially in the Oriental parts. The grim King of Terrors is stretching forth his gigantic arms; he strikes down one of the greatest."

Having thus far explained the leading principles of astrology, we shall notice a few of its absurdities, inconsistencies, contradictions, and fallacies, from the application of its rules. And, first, of lucky hours. In the aphorisms on the events of lotteries, insurance, &c., as given in Ramsay's 'Elections,' we find that the first twelve hours after the conjunction of the sun and moon are unfortunate, the next seventy-two are lucky, the following twelve unlucky, and the subsequent seventy-two again fortunate, and so on throughout the month. This aphorism implies a contradiction: it is laid down for the special guidance of persons engaged in gam-

bling transactions; and it is evident that if two persons sit down to any game, the hour which is lucky to the winner is unlucky to the loser. Friday is generally considered to be an unlucky day: many persons, not otherwise superstitious, do not like to commence any business of importance on a Friday; and we have read a very interesting tale, founded on this popular superstition. But Friday, astrologically considered, is not an unlucky day; it is under the rule of Venus. It is true that Saturn rules the fourth and eleventh hours after sunrise, and the sixth after sunset; and Mars rules the sixth after sunrise and the first after sunset; and as these hours differ in their duration according to the difference in the length of the day and night, you may chance, unless you calculate accurately, to fall into an unlucky hour in a lucky day.

In horary questions, the answer to the same inquiry will vary with the time of the day. If the querent should desire to know to what part of the world he must direct his course in order to obtain riches or improve his health, the rule is, to direct him to that quarter in which the promising planets are located; if they be in the first house at the time he makes the inquiry—suppose eight o'clock in the morning—he must go eastward; but as the heavenly bodies pass through each house in about two hours on the average, if the wife of the querent were to go at two o'clock in the afternoon to ask the same question, she would be told to go southward; and if another member of the family went at eight in the evening, the direction would be to go westward. Lilly, aware of these discrepancies, has laid down another rule, by which any mutation of the points of the compass, from an alteration of time, is prevented. By this arrangement Aries always represents the east, even though it be in the west; and Libra must always be understood to be in the west, although really in the opposite point. Lilly has here well exemplified the ancient adage of falling into Charybdis by endeavouring to avoid Scylla. If a querent desire to know where anything is hidden, lost, or mislaid, the rule is to see in what signs the significators of the things lost are posited, and if they should be in fiery signs, the lost or hidden things are near the chimney or fire-place; if in watery signs, they are in the buttery, dairy, wash-house, or near the cistern. Now Lilly has fixed the fiery signs in the east; but there are many houses which have no fire-place in the east; he has also placed the watery signs in the north; the wash-house, cistern, &c. ought therefore to be in the north; but they are often in the other quarters—so that the rules are inconsistent and nugatory. Cato used to say that the most surprising thing to him was how one soothsayer could look another in the face without laughing. This might as aptly have been said of astrologers.

We have thus given an exposition of astrology, with its absurdities, inconsistencies, contradictions, and fallacies. So prominent and palpable must they, indeed, appear, that many persons may wonder that anything so ridiculous should ever have obtained credence. But it must be borne in mind that astrology was for ages veiled in mystery—even the angles of the twelve houses, and the characters of the signs and planets had something mystical about them; that till the eighteenth century there was a prevalent belief in occult powers and practices—in necromancy, incantations, and the power of witches to destroy persons by moulding their images in wax or clay.

The belief in astrology was not more absurd than this belief in witchcraft, which was entertained by the succeeding monarch, James I. But astrology and witchcraft soon after lost the hold they had on men's minds. Astrology declined with Lilly; the "wits of Charles" levelled the shafts of their ridicule at it, and it never rallied again. Lilly was, by far, the most famous of our English astrologers; he was consulted both by Charles I. and the parliament, and made money by predicting success to both parties. Butler, in his 'Hudibras,' ridicules him under the names of "English Merlin" and "Erra Pater." The House of Commons had so great a regard for his predictions, that the author of 'Mercurius Pragmaticus' (No. 26) styles the members the sons of Erra Pater.

Lilly, a little before his death, adopted for his son, by the name of Merlin, junior, one Henry Coley, a tailor, and gave him at the same time the impression of his almanac, after it had been printed for thirty-six years. Coley published some astrological works, one under the title of 'Coley's Key New Filed;' but Merlin, junior, never arrived at any great eminence. The character of Foresight, in Congreve's comedy of 'Love for Love,' was a banter upon Lilly, and Valentine, in his feigned madness, calls him Erra Pater. Lilly's fame in England was, perhaps, as great as that of Nostradamus in France: the predictions of both were sometimes fulfilled. Lilly could not fail of being sometimes right by predicting the same fortune to adverse parties; and Nostradamus published so many centuries of prophecies—many under allegorical allusions—that it is not surprising that a few should coincide with subsequent events. He drew up and signed the nativity of M. Suffren, which the Abbé Pluche says was entirely false. It may be here remarked, that if out of a hundred predictions there be one fulfilled, that one is blazoned abroad till every one hears and admires the wonder; whilst the ninety-nine failures pass unnoticed, amidst the crowd of common events, into oblivion.

When astrology lost the poetry of its character, its antiquity could no longer render it venerable; it became a dull, gross error, filling men's minds with unreasonable hopes and groundless fears. Men forebore doing anything till they were under a favourable position of the stars. The ascendant point of such a constellation produced this effect, and the culminant point of the same or another constellation corrected that. Prudence and wise precautions, founded on experience, were superseded by an observance of critical days and fortunate hours, by superstitious forms and puerile practices. "Astrology," says the Abbé Pluche, "completed the ruin of every virtue. It quieted criminal minds by making them cast upon the predominant planet the evil which was but the result of their own depravity. Irreligion was hardly carried to a greater degree anywhere than at the court of Henry II. and that of Henry III. Never were astrologers better paid, never horoscopes in greater vogue than at that time. This disease of predictions was likewise contagious under Henry IV. and Louis XIII. De Thou, Mezerai, and many other great geniuses had from their infancy been infected with this evil; nor were they ever thoroughly cured of it."

But the reign of astrology must now be considered as terminated in all enlightened countries, and all attempts to restore it to its pristine sovereignty as vain and ineffectual. Its throne, which was raised when the earth was believed to be the centre round which all the heavenly bodies revolved, was shaken to its foundation by the establishment of the solar or Copernican system, and the discovery of the modern planets, for whom, though no doubt equally influential with the others, no *houses* and no dominion remained. Though fostered by Moore, and Zadkiel, and Raphael, no real importance can ever be again attached to it. People may observe and smile at curious coincidences, but predictions of astrology will in future rank no higher than those derived from the sediment of a coffee-cup or the lines on the hand explained by a gipsy.

[Hall, in the Tyrol.]

THE TYROL.

This country, of which we have already given occasional notices, is one of the most interesting and picturesque regions in all Europe. The valleys are warmer, more fertile, and the vegetation more luxuriant than those of Switzerland, as we have noticed in Nos. 209, 211, and 356, in describing Innsbruck and the valleys of the Meran and the Non; though on the whole even more mountainous, not more than one-tenth of the entire surface being capable of arable cultivation. Its waterfalls, both in number, height, and beauty,* also exceed those of Switzerland, that of the Adige, above Meran, being considered to exceed even that of the Rhine at Schaffhausen; and it is only in the magnificent expanse of its lakes and the sterile sublimity of some of its higher mountains that Switzerland excels the Tyrol.

The Tyrol has long formed a part of the hereditary dominions of the house of Austria, and the glorious efforts made by the inhabitants to resist their transfer to Bavaria, in 1809, have been narrated in No. 209. It is of an extremely irregular form, the Vorarlberg stretching out like a peninsula as far as the Lake of Constance, in 9° 32′ E. long., while on the opposite side the Austrian province of Salzburg indents the Tyrol to nearly 12° E. long., although its frontiers extend on each side of the indentation to Lofer, on the Bavarian frontier, in 12° 45′, and to Oberdrauberg on the Austrian, in 12° 55′. Its northern frontier joins Bavaria in its whole extent, and its extremest point is a little beyond Kufstein, in about 47° 48′ N. lat.; the southern, south-western, and south-eastern frontiers join Italy, being separated from the Lombardo-Venetian kingdom by the range of the Carnic Alps. At its southern extremity it reaches 45° 36′, crossing the northern end of the Lago di Guarda, and reaching a few miles farther south. Nearly one-tenth of the surface is calculated to be continually covered with snow. In extent it is about double the size of Yorkshire, and the population is reckoned at about 830,000.

* See No. 220, for an account of that of Golling.

The Tyrolian Alps form the eastern portion of the Central or Rhætic Alps, and do not rise so high as the Western Alps in Mount Rosa or Mount Blanc, but they are as high as the western portion of the Rhætic Alps in Graubündten. The most elevated parts lie along the western boundary-line, south of the Inn river, and in the great chain which runs through the country from west to east, dividing the waters which run northward to the Danube, from those that flow southward to the Adriatic, or eastward to the river Drau. The western chain, as already observed, runs uninterruptedly from the Lake of Idro to the Ortler Spitz. South of 46° 8′ it does not attain the region of perpetual snow, and probably does not exceed seven thousand feet above the sea-level: but near 46° 8′ it rises in Monte Adamello to more than eleven thousand feet, and from this summit to the Ortler Spitz (46°30′), hardly any portion of the range is free from snow even in the latter part of the summer. The general elevation of this range probably exceeds nine thousand feet above the sea. The Ortler Spitz is the highest summit of the Rhætic Alps, being twelve thousand eight hundred and fifty-five feet above the sea; some authorities say above fourteen thousand feet; but the variations probably arise from the difficulty in obtaining a correct base-line and the uncertainty of barometrical measurement. It is surrounded by other summits, and is always covered with snow.

The largest rivers of Tyrol are the Inn and the Etsch. The Inn rises in the western part of the Rhætic Alps, in Engadin, and runs about fifty miles before it enters Tyrol by a very narrow valley at Finstermünz. Its course within Tyrol is about one hundred miles, and it becomes navigable for small river-boats at Telfs, about twenty miles above Innsbruck, and for larger river-boats at Hall, about eight miles below Innsbruck. Below Kufstein it leaves Tyrol and enters Bavaria, falling ultimately into the Danube at Passau. The Etsch originates in the mountains west of the Ortler Spitz, and runs to the eastward until it is joined by the Passener rivulet, when it turns to the south-east. At its junction with the Eisack below Botzen it

turns southward and begins to be navigated. At Borghetto it leaves Tyrol and enters the Lombardo-Venetian kingdom: it is hence known as the Adige, and falls into the Adriatic. The navigation of these rivers is difficult, and frequently interrupted by their rapidity, especially after the melting of the snow in the mountains.

The deep and wide valley of the Upper Etsch (Adige), called Vintschgau, separates the mountain-masses of the Ortler Spitz from the mountain-range which traverses Tyrol from west to east. This range is divided into two high and elevated mountain-masses, which are divided by a large and wide depression of the mountain, which occurs near 11° 30′ E. long., and through which the road over the Brenner passes from Germany to Italy. The mountain-region west of this road consists of two extensive and very elevated mountain-masses, which are connected by a high ridge. The western mountain-mass is called the mountains of the Platey Kögl, or of the Great Oetzthaler Ferner, and the eastern is named the mountains of the Winacher Ferner. The mountains of the Platey Kögl occupy nearly the whole country between the Inn river on the west and the Achen river on the east, a space of nearly thirty miles from south to north, and twenty miles from west to east. A considerable portion of this tract is always covered with snow, from which rise numerous pinnacles, among which the highest are Mount Gebatsch, twelve thousand two hundred and seventy-six feet; the Similaun Spitz, eleven thousand eight hundred and fifty-nine feet; and the Great Oetzthaler Ferner, ten thousand four hundred and thirty-four feet above the sea-level. This is one of the most broken portions of the Alps, and the snowy masses are only furrowed by two deep and very narrow valleys. The mountains of the Winacher Ferner, or the eastern part of the region, are connected with those of the Platey Kögl by a high and narrow ridge, which only in a few places is free from snow in summer. The Winacher Mountains also rise above the snow-line, but the mass is less extensive than that of the Platey Kögl. Several summits rise above ten thousand feet, among which are the Kitzhamp, the Winacher Ferner, the Winter Stuben, and the Bock Kögl.

The depression which occurs east of the Winacher Mountains is of considerable extent, for no summit always covered with snow occurs in a space extending more than eighteen miles from west to east. No summit of this part of the Tyrolian Alps probably exceeds seven thousand five hundred feet in height; and in the middle, near 11° 30′ E. long., it sinks much lower: the road over the Brenner is, at its highest level (47° N. lat.), not more than four thousand three hundred and seventy-four feet above the sea-level. This is the lowest mountain-road across the Alps, and has accordingly become the most frequented line of commercial intercourse between Germany and Italy. This road may be considered as beginning at Innsbruck in the valley of the Inn, whence running in a southern direction it ascends the valley of the Sill or the Wipthal to its source near the post-house of Brenner, where it attains its highest level. Descending from it the road enters the valley of the Eisack above Sterzing, and follows the course of that river to its junction with the Etsch (Adige) below Botzen, whence it continues in the valley of Etsch, to Trent, Roveredo, Avio, and Verona. A few miles above Verona it emerges from the mountains and enters the Plain of Lombardy. Innsbruck is about one thousand nine hundred and twenty and Trent nine hundred and sixty feet above the sea-level.

As great portion of the country, probably one-tenth, is always covered with snow, whilst its most southern valleys are hardly five hundred feet above the sea-level, the climate of Tyrol must differ greatly in different places. At Innsbruck the mean temperature of the winter is 30·5°, or nearly 8° less than at London; and that of the summer is 64°, or about 2½° more than at London. The mean annual temperature is 49°, or 1° less than at London. At Trent the mean annual temperature is 53°, or nearly 3° higher than at London.

All those parts which on the north are seven thousand five hundred feet, and on the south eight thousand five hundred feet above the sea-level, are always covered with snow. Lower down, to an elevation of six thousand feet above the sea, snow is found all the year round in places which are not much exposed to the sun, but in other places the declivities of the mountains are covered with grass and flowers. In the region between six thousand and five thousand feet trees do not grow, but there are some bushes, between which the soil is covered with grass that serves for pasture during two or three months in summer. There are no houses inhabited all the year round at this elevation. Fir-trees occur only at an elevation of between five thousand and four thousand feet, where a few permanent habitations are found, and some potatoes and vegetables are cultivated. The winter lasts in this region eight or nine months. Agriculture is carried on with success in all places below four thousand feet. Rye and barley are grown, and potatoes to a considerable extent, though they do not grow large when planted above three thousand feet. Apple and pear trees succeed at the elevation of four thousand feet, and even somewhat higher, but plum-trees only to three thousand eight hundred, and walnut-trees to three thousand six hundred feet. The beech is found between three thousand and four thousand feet, and the oak between one thousand eight hundred and three thousand feet above the sea-level. Wheat does not succeed above three thousand feet, and vines only between eight hundred and one thousand eight hundred feet.

[To be continued.]

USEFUL APPLICATIONS OF THE ASH-TREE.

THE name of the *Ash* has, somewhat confusedly, been applied to two trees occupying a very different place in botanical classification: the one being the *Common Ash* and others of a similar genus, known by the general name of *Fraxinus;* and the other the *Mountain-Ash*, belonging to the genus *Pyrus*. The useful purposes to which these two kinds are applied differ as much as the appearance of the trees.

The Common Ash is a fine forest-tree, rising to a height of from eighty to a hundred feet. It is indigenous to most parts of Europe, and to some parts of America and Asia. The tree was known to the Greeks and the Romans, the latter of whom made their spears of its wood; it was also valued by them as a material for agricultural implements, and for certain medicinal qualities.

The timber of the ash is the product of most value. Though not so durable as the matured or heart wood of the oak, it surpasses both it and all our other indigenous trees in toughness and elasticity of fibre, on which account it is almost universally used in the fabrication of all articles where these qualities are particularly required. The texture of the wood is alternately compact and porous; and where the growth has been vigorous, the compact part of the annual layers bears a greater proportion to the porous, and the timber is comparatively tough, elastic, and durable. From its great elasticity and toughness, it is much employed in all those parts of machinery which have to sustain

sudden shocks, such as the felloes, teeth, and spokes of wheels, beams of ploughs, &c.; but since the use of iron has become so general in the manufacture of instruments and machines, the value of the ash has somewhat diminished. Still, however, it ranks among the most valuable of our timber-trees, especially for the purposes of the coachmaker, the wheelwright, and the maker of agricultural implements. It is much used for kitchen tables, on account of two qualities which the housewife can well appreciate, viz., that it admits of being well and readily scoured, and that it does not endanger the scourer's hand by splintering. It was formerly much used in staircases, such as that at Wroxton Abbey. Milkpails, in many parts of England, are made of thin boards sawed lengthwise out of the ash-tree, each rolled into a hollow cylinder, with a bottom fixed to it: a mode of employment which strikingly illustrates the elasticity of the wood. The roots and the knotty parts of the trunk are in demand by cabinet-makers, for the curious dark figures formed by their veins, which have a remarkable appearance when polished. This quality was known two centuries ago; for Evelyn says that "some ash is so curiously cambleted and veined, that skilful cabinet-makers prize it equally with ebony, and call it green ebony."

Among other uses to which this timber is applied, Mr. Loudon mentions the following:—It is an excellent wood for oars, blocks, and pulleys. Few other trees become useful so soon, the wood being fit for walking-sticks at four or five years' growth, and for handles for spades and other instruments at nine or ten years' growth. An ash-pole three inches in diameter is, indeed, one of the most valuable pieces of timber, for its bulk, that any tree can furnish. For hop-poles, hoops, crates, basket-handles, rods for training plants or for forming bowers, light hurdles, and for fence wattlings, the branches of ash, in various stages of growth, are particularly valuable. In the neighbourhood of the Staffordshire Potteries the ash is cultivated to a great extent, and cut every five or six years for crate-wood, which is in great demand in the Pottery districts. In Kent, and in various places in the neighbourhood of London, the most profitable application of the young ash is for walking-sticks, plant-rods, hoops, and hop-poles. For the latter purpose coppice-woods are cut over every twelve or fourteen years, according to the nature of the soil; and for the former purposes, every five or seven years. The ash makes excellent fuel, burning, even when nearly cut, with very little smoke; and it is said to be the best of all woods for smoke-drying herrings.

The ashes of the branches and shoots of the ash-tree afford a very good potash. The bark is used for tanning nets and calf-skins. The leaves, in some places, are used as food for cattle in autumn, and in others in spring; they are also used for adulterating tea. The leaves and shoots, eaten by cows, are said to give the milk and butter a rank taste; but on the other hand the Romans are said to have recommended ash-leaves as being next to elm-leaves as fodder. Mr. Selby, Mr. Loudon, and Mr. Sydney all agree in thinking that the popular opinion on this matter is erroneous. Mr. Selby observes: "The leaves of the ash, when eaten by cows, are generally supposed, but we believe erroneously, to communicate an unpleasant flavour to the milk and butter: we have not been able to detect anything unpleasant in regard to our dairy, although the cows have access to several ash-trees growing in and around their pasture." ('British Forest-Trees.') Mr. Loudon's words are:—"In moist pastures, interspersed with or surrounded by numerous trees in hedge-rows, the leaves, after dropping in the autumn, communicate a bitter taste to the water both in the ditches and ponds, and possibly also to the milk of cows; but this does not hold good more with respect to the ash than to other trees: indeed, the most objectionable is the oak, the leaves of which in autumn give a decidedly bitter taste both to the water and milk." Mr. Sidney of Morpeth, in a letter to Mr. Loudon, observes: "The statement made by many writers, that the butter made from the milk of cows which have eaten ash-leaves has a disagreeable taste, is certainly not founded in fact. Much excellent butter is made in this neighbourhood, on farms where it would be impossible to prevent the cows from feeding upon the leaves of the ash; and yet I have never met with a farmer's wife or dairy-woman in the neighbourhood of Morpeth who had ever heard of the supposed injury done to butter."

Evelyn states that the seed, or 'keys,' as they are termed, were in his day, while green, pickled and preserved as a "delicate salading;" these seeds have an aromatic and rather bitter flavour, and are infused by the Siberians in the water used for drinking, to give it a flavour. The medicinal quality of the seeds seems to have been known and highly extolled by the Arabian, Greek, and Roman physicians; dropsy and calculus being two diseases for which it is said to be valuable.

The sap of the ash-tree is considered by some French physicians to be an excellent remedy for the gangrene; and for this purpose the sap is procured either from the leaves by maceration, or from the greenwood by putting one end of a branch into the fire, and collecting in a spoon the sap which exudes at the other end.

There is another species of ash, called the *European Flowering Ash*, or *Manna Ash*, which yields abundantly a sap whence one of its names is derived. This tree is a native of the south of Europe, and rises to a height of about twenty or thirty feet. The sap extravasates from them, and, on concreting, becomes a mild and mucilaginous substance, which is extensively sold in Italy as manna. The chief supply comes from Calabria and Sicily, where the manna runs of itself from the trunks of some trees, while from others it does not flow unless a wound be made in the bark. Those trees which yield the manna spontaneously grow in the most favourable situations; and the sap runs from them spontaneously only during the greatest heats of summer. It begins to ooze out about midday, in the form of a clear liquid, which soon thickens, and continues to appear till the cool of the evening; when it begins to harden into granules, which are scraped off the following morning. When the night has been damp or rainy, the manna does not harden, but runs to the ground and is lost. This kind is called "manna in tears," or "manna lagrimi," and it is as pure and white as the finest sugar. About the end of July, when the liquid ceases to flow of itself, incisions are made through the bark and soft wood; and into these incisions slender pieces of straw or twig are inserted, on which the manna runs, and, coating over them, hardens on them. This is the common manna of the shops, which is thus collected in the form of tubes, and it is called "manna cannoli." Another and inferior sort is procured by making an oblong incision in the trees, in July or August, and taking off a piece of the bark about three inches in length by two in breadth. This kind, called "manna grossa," is the coarsest; but as it is produced with least trouble, and in great abundance, it is also the cheapest. Sometimes, instead of cutting out a piece of bark, and leaving the wound open, two horizontal gashes are made, one a little above the other; in the uppermost of which is inserted the stalk of a maple leaf, the point of the leaf being fixed in the lower gash, so as to form a sort of cup for the reception and preservation of the manna. The greater part of the manna of commerce is procured in the latter manner; and it is imported in chests, in long pieces

or granulated fragments of a whitish or pale yellow colour, and slightly transparent. The inferior kind is of a dark brown colour, in adhesive masses, and is moist and unctuous when felt. Manna from the ash has a peculiar odour and a sweetish taste, accompanied with a slight degree of bitterness. It is considered aperient; was formerly much used in medicine; but is now chiefly used to disguise other drugs in administering them to children. Mr. Loudon, after treating of the ash manna, points out the distinction between it and the manna of Scripture, as also the manna produced from the sap of the larch, the rhododendron, the walnut, and the beech.

The *Mountain-Ash*, familiarly known as the *Witchen-tree* and the *Fowler's Service-Tree*, is very different from the foregoing. It is found in most of the hilly countries of Europe and Asia, and attains a height of about twenty feet. The wood which it yields is fine-grained, hard, capable of receiving a permanent stain and a high polish; and it is applied, when of sufficient dimensions, to most of the purposes for which pear-tree wood is used. The shoots are well adapted for poles and for making hoops, and the bark is in demand by tanners.

The fruit of the mountain-ash is greedily devoured by birds; and in Germany the fowlers bait springes, or nooses of hair, with the berries of this tree, which they bury in the woods to entice the redwings and fieldfares. Hence one of the names of the tree. Evelyn, while speaking of the berries, says "they form a tempting bait for the thrushes; as long as they last in your woods, you will be sure of their company." In various parts of the north of Europe the berries are dried and ground into flour, and used in times of scarcity as a substitute for wheaten flour. They are sometimes eaten raw as a fruit; and Mr. Selby says that he has seen them exposed for sale for this purpose in the streets of Glasgow. A spirit is distilled from them in Livonia, Sweden, and Kamtschatka; and in Evelyn's time a kind of beer or ale was brewed from them in Wales. They are also said to yield, when infused in water, a kind of acid drink somewhat resembling perry.

One of the most singular circumstances connected with the mountain-ash is the superstition with which it is often regarded, and which has given rise to some odd "uses" of the tree. The "Witchen-tree," one of its synonyms, alludes significantly to this superstition; while the words Rowan, Rowne, Roan, &c., variously spelled, will serve to refer to many passages in old writers where allusion is made to the supposed power of this tree in driving away witches.* Lightfoot speaks of the existence of this superstition in Scotland; Johnson, in Northumberland; Sir Thomas D. Lauder, in Wales; and Bishop Heber, in India: and in all of those countries and places the popular weakness is similar in character. Mr. Waterton, the South American traveller, communicated to the 'Magazine of Natural History,' a few years ago, an account of an instance of this kind, which came under his notice at his estate at Walton in Yorkshire. "In the village of Walton," he remarks, "I have two small tenants; the name of the one is James Simpson, and that of the other Sally Holloway; and Sally's house stands a little before the house of Simpson. Some three months ago I overtook Simpson in the turnpike road, and I asked him if his cow was getting better, for his son had told me that she had fallen sick. 'She's coming on surprisingly, Sir,' quoth he; 'the last time the cow-doctor came to see her, "Jem," said he to me, looking earnestly at old Sally's house—"Jem," said he, "mind and keep your cowhouse door shut before the sun goes down, otherwise I woant answer for what may happen to the cow." "Ay, ay, my lord," said I, "I understand your meaning; but I am up to the old slut, and I defy her to do me any harm now."' 'And what has old Sally been doing to you, James?' said I. 'Why Sir,' replied he, 'we all know too well what she can do. She has long owed me a grudge; and my cow, which was in very good health, fell sick immediately after Sally had been seen to look in at the door of the cow-house, just as night was coming on. The cow grew worse; and so I went and cut a bit of *wiggin* (another name for the mountain-ash), and I nailed the branches all up and down the cowhouse; and, Sir, you may see them there, if you will take the trouble to step in. I am a match for old Sally now, and she can't do me any more harm, so long as the wiggin branches hang in the place where I have nailed them. My poor cow will get better in spite of her.'"

* It has been supposed by some commentators, that the word "*aroint*," which occurs twice in Shakspere ('Macbeth' and 'King Lear'), has allusion to this reputed power of the Mountain-Ash or Rowan-tree, used in the sense of a threat—"A rowan-tree to thee, Witch!" But among the notes to the 3rd Act of 'King Lear,' in Mr. Knight's 'Pictorial Shakspere,' is the following:—"It is conjectured that it (the word *aroint*) is a compound of *ar*, or *aer*, and *hynt*: the first a very ancient word, common to the Greek and Gothic languages in the sense of to *go*; the second derived from the Gothic, and still in common use under the same form and with the same meaning, *hind*, *behind*, &c. in English, and *hint*, or *hynt*, in German." This view of the case is supported by many illustrations.

Fire-Flies of Jamaica.—The fire-flies of Jamaica emit so brilliant a light, that a dozen of them, enclosed within an inverted glass tumbler, will enable a person to read or write in the night-time without the least difficulty. Indeed, it is an expedient to which many resort. These flies are in size as large as a common hive bee, and perfectly innocuous. Their appearance in unusual numbers acts as a thermometer to the natives; and it is an unquestionable indication of approaching rain. To travellers they afford, even on the darkest nights, sufficient light to guide their footsteps with the greatest safety. The light which they send forth is in every respect equal to that of the purest diamond; and hence the Creole coquettes frequently insert a few of them, confined in pods of gauze, in their hair and other parts of their dress, in the same manner as actresses avail themselves of the paste-jeweller's art.—*Phillipo's Jamaica.*

Use of Oxen in Australia.—Some time will be necessary to become reconciled to the use of bullocks in the multifarious capacities to which the practice of the colony devotes them, and whose assistance as animals of draught will be new to the experience of English and Scotch tillers of the soil. From the tardiness of their movements, combined with the small amount of work performed, they impart a double portion of tedium to the labours of the husbandman, and certainly appear to great disadvantage in contrast with the superior activity of horses; but this slowness, although sufficiently annoying, is more than compensated by the superior steadiness of their draught; and but for the weight of their numbers acting in concert, it is doubtful whether any other power could enable the colonist to overcome the resistance offered to the plough in breaking up the virgin soil; at all events, it would be impossible by any other means to convey a load along the rugged tracts that serve as the only lines of communication, abounding as these do with the unremoved impediments of the wilderness—deep gullies, treacherous swamps, precipitous ascents, and bridgeless rivers. It is in meeting these obstacles that their utility becomes most obvious. However deep the dray may be embedded in mud, or perilous the acclivity up the face of which it is toiling, the driver has no fear for the result. Inch by inch it is dragged forward, the chain so stiff as to resemble a bar of polished steel, while the team never for a moment relaxes from a uniform strain that fails not, though by slow degrees, to force a way against all opposition. In such situations the strength of horses would be speedily exhausted by their own struggles, which, so far from being useful, would tend rather to endanger themselves and the vehicle.—*A Summer at Port Phillip, by the Hon. R. D. Murray.*